EIS scoping request on open-air coal stockpile coal dust emissions and diesel exhaust emissions emanating from the Gateway Pacific Terminal Site

My name is Paula Rotondi and I am one of the several thousand people living within five miles of the proposed Gateway Pacific Terminal (GPT). I am concerned that millions of pounds of toxic coal dust would escape every year from GPT's open-air coal stockpiles each year and significantly, severely and adversely impact my health, my property, my community, the publically shared vast natural treasures and all living creatures in this area. I am also concerned about significant, severe, adverse impacts to air quality resulting from the entering, idling and departing of 18 coal trains each with four diesel engines per day, and three diesel powered Panamax/Capsize bulk coal cargo ships entering, departing and idling at the terminal per day, 365 days per year. Additionally I am concerned about the effects of unhealthy and aesthetically repugnant air quality upon the economy of communities in the Birch Bay, Cherry Point, Lummi, Ferndale, San Juan Islands and western Whatcom County.

It is reasonably foreseeable that GPT operations annually would produce millions of pounds of toxic, fugitive coal dust and diesel exhaust emissions that would significantly, seriously and adversely impact air quality and all life within five miles of the GPT. The 2010 census data show that more than 8000 people live in Birch Bay and there are many thousands more tourists, many thousand more part-time residents, and many thousands more employees all of whom would be severely, significantly and seriously harmed by breathing GPT's fugitive, toxic coal dust and diesel exhaust emissions.

According to Pacific International Terminal's Project Information Document section 4.3.1.2, the East Loop coal stockyard would be a single, large, unpaved, 80 acre, open-air stockyard with a total capacity of 2.75 million metric tons of coal. The East Loop stockyard would have five coal stockpiles. The five coal stockpiles would be approximately 2,500 feet long and up to about 62 feet high. The five coal stockpiles would be managed with 110 feet high rail-mounted stackers/reclaimers.

According to Pacific International Terminal's Project Information Document section 4.5.1, the GPT would operate "24 hours a day, 365 days a year". Operating at full capacity GPT would move 48 million metric tons of coal per year onto and then off-of its open stockyard; that is 131,506 metric tons of coal per day being moved on and then moved off the stockpiles. It is reasonably foreseeable that the constant disturbance and movement of coal in GPT's open-air stockpiles along with compounding effects of wind and weather would result in the release of coal dust into the air with significant and severely adverse impacts upon air quality.

This April 12, 2012 photo shows a 28 M.P.H. gust of wind blowing coal dust from the open-air coal stockpiles at the Westshore Terminal at Roberts Bank, B.C. According to a 2001 study of coal dust emissions in Canada[1], the Westshore terminal emitted 715 metric tons or 1,573,000 pounds of coal dust into the air per year when shipping 21 million metric tons of coal per year.

According to Pacific International Terminal's Project Information Document Table 4–2, at full operational capacity, GPT would stockpile 48 million metric tons of coal per year - more than twice as much as Westshore. GPT would use the same dust control techniques as the Westshore. Pacific International Terminal's Project Information Document Section 4.5.5.3 states, "Uncovered storage of large quantities of dry particulate commodities has the potential to generate windblown dust. Dust control measures to be implemented at stockpiles would consist of a combination of compaction, fogging systems, water sprays, perimeter soil berms, regular pavement sweeping, and/or application of chemical surfactants… Windscreens would be employed as needed to minimize dust generation during operations."

GPT would use the same dust control techniques on its open-air coal stockpiles as are used by other coal terminals with the evidence from all showing that GPT's proposed dust control techniques would not prevent the release of significant and severely adverse quantities of coal dust that would degrade air quality and seriously impact people and all life forms in the area. There is no known technique or combination of techniques capable of reducing emissions from open-air coal stockpiles to a safe or acceptable level. Trees and vegetation on the site that are sufficiently tall and dense to trap some of the larger and heavier coal dust and diesel exhaust emissions would be more likely than not to die rather quickly from the accumulating anoxic quantities and toxic qualities of these emissions. Extrapolating from the Westshore terminal data in the 2001 Canadian study[1], it is more likely than not that GPT's

open-air coal stockpiles would emit 1430 million metric tons or 3,146,000 pounds of coal dust into the air per year when operating at full capacity.

I request that the EIS include a study of the impacts of coal dust and diesel exhaust emissions upon air quality and upon all people, vegetation and wildlife within a five mile range of the project site. The EIS must include the following:

First: The EIS must determine and quantify the amount of coal dust emitted per year from GPT's open-air, coal stockpiles. The EIS must determine and quantify the amount of diesel exhaust that would be emitted annually at the project site by the 26,280 train diesel engines (18 trains x 4 diesel engines x 365 days) and the diesel engines of 974 bulk cargo ship transits (487 arriving empty and then departing loaded).

Second: To establish the coal dust and diesel exhaust emissions dispersion patterns, the EIS must provide an analysis and documentation of wind conditions at Cherry Point including wind direction, average wind velocity, and peak wind gusts on a day by day and month by month basis based upon long term historical records. Generally, for much of the year the prevailing winds at Cherry Point blow from the south or from the north-northeast.

Third: The EIS must include a comprehensive listing of the components of coal dust and diesel emissions and identify those that are known to be toxic substances harmful to people, vegetation and/or wildlife. For soot, the EIS must analyze the adverse impacts utilizing the newly announced on December 14, 2012 Environmental Protection Agency standards for soot particles in the air that sets an annual standard of 12 micrograms per cubic meter of air. Communities must meet this new soot standard by 2020 or face possible penalties including loss of federal transportation financing. The EIS analysis must be done for all areas surrounding the terminal and within a five mile range of the project site.

In general coal dust and diesel exhaust emissions are harmful because they contain soot particulate matter of 2.5 micrometers in diameter which readily embeds in lung tissue, and because they contain toxic substances such as mercury, arsenic, benzene, formaldehyde and lead that are known to cause cancer, birth defects, heart disease, neurological problems, emphysema and asthma.

Fourth: The EIS must assess the adverse impacts of coal dust and diesel exhaust emissions upon air quality and upon the people, life forms and ecosystems within a five mile range of the project site. The EIS must specifically study and describe the significant and severely adverse impacts of GPT's coal dust and diesel exhaust emissions upon air quality and upon -

- health of people (include population numbers and age groups) residing in, visiting, vacationing and working within five miles of the GPT project site
- all vegetation and wildlife including species of the Cherry Point Aquatic Reserve (comprehensive list, population estimate, status of each) and species of the Birch Bay watershed (comprehensive list, population estimate, status of each) within five miles of the GPT project site

- property values within a five mile range of the project area.
- businesses and industries including those in agriculture, tourism, commercial fishing, and BP Cherry Point Refinery
- aesthetics of scenery, landscapes and outdoor activities within five miles of the project site

Mitigation

The only acceptable mitigation is to completely enclose GPT's coal stockpiles within a sealed building consisting of roof, walls and floor constructed so as to isolate the coal from the outside environment and contain and prevent the coal from exposure to wind and precipitation.

References

1. Douglas L. Cope and Kamal K. Bhattacharyya, A Study of Fugitive Coal Dust Emissions in Canada, "Chapter 8: Coal Terminals: Fugitive Dust Emissions and Control," prepared for The Canadian Council of Ministers of the Environment, November 2001.